MEU (SOC)s and Operational Maneuver from the Sea
There Needs to be a Change

A Monograph
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ABSTRACT

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By Major Phillip W. Boggs, USMC, 49 pages.

The beginning of the 21st century will confront the U.S. Marine Corps' forward-deployed Marine Expeditionary Units (Special Operations Capable) (MEU (SOC)) with challenges and opportunities while operating as the Nation's "Force in Readiness." The challenges are caused by the demise of the Soviet Union and the rise of regional conflict, which affects the United States national interests. As the world's population explodes in the coastal regions, the potential for conflict and possible Marine Corps intervention grows. The opportunities for the Marine Corps entering the 21st century are in the emerging technologies that will enhance the way Marines operate in the future.

This monograph suggests changes required in the MEU (SOC) organization that will allow it to operate under the new Marine Corps doctrine entitled Operational Maneuver from the Sea (OMFTS). Beginning with a history of key Marine Corps challenges, the monograph demonstrates how the Marine Corps has recognized changes in conflict and technology throughout its history and adapted accordingly. Although the study proves the Marine Corps can adapt to change, it demonstrates the Marine Corps has always maintained its expeditionary ethos and naval heritage.

This monograph reviews and explains the key concepts of the threat and new operating doctrine to confront that threat. The threat study, entitled "Chaos in the Littorals," predicts a complex operating environment along the world's coastlines and urban areas. To confront these challenges, the Marine Corps has defined seventeen new concepts for future operations within OMFTS. Ship to Objective Maneuver, Sustained Operations Ashore and Comprehensive Command and Coordination are three key concepts of OMFTS that will have immediate effects on how a MEU (SOC) operates in the future.

After examining the organization and capabilities of the MEU (SOC), this monograph analyzes a present day MEU (SOC) attempting to operate under OMFTS within a future scenario. The study concludes that changes in equipment, staff structure, and operating command relationships are required for the MEU (SOC) to fully adapt OMFTS. The Marine Corps has always found a means to adapt. The future will be no different.

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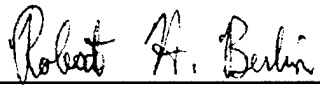

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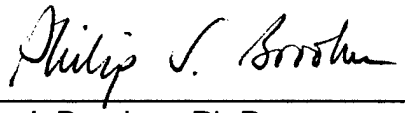

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I. Introduction

Victory smiles upon those who anticipate the changes in the character of war, not upon those who wait to adapt themselves after they occur.[1]

Giulio Douhet

A Marine officer was still an officer, and a sergeant behaved the way good sergeants had behaved since the time of Caesar, expecting no nonsense, allowing none. And Marine leaders, had never lost sight of their primacy-their only mission, which was to fight[2]

T.R. Fehrenbach

Much like the Italian air power theorist's, General Giulio Douhet, statement regarding air power, the United States Marine Corps has survived for over 224 years by anticipating changes in warfare and developing the appropriate doctrine and organizations to provide flexible forward-deployed forces possessing numerous capabilities. How did 2200 Marines organized as ship's detachments at the end of the American Revolutionary War evolve to an amphibious assault force of over 500,000 Marines organized into six divisions and four aircraft wings in World War II? How do those same traits carry over to the current 174,000 active and 38,000 reserve Marines organized into Marine Air Ground Task Forces (MAGTFs), who are a primary Flexible Deterrent Option (FDO) for the geographic Commanders In Chief (CINCs)?

The Continental Congress understood the importance of maritime power as it faced Great Britain in the War of Independence. The Continental Army watched the British conduct operational maneuver by moving infantry formations along the coast and rivers without disruption, while supporting them with additional combat power and logistics from the sea. General George Washington, Commander in Chief of the Continental Army, stated " Under all circumstances, a decisive naval superiority is to be considered a fundamental principle, and the basis upon which all hope of success must ultimately depend."[3] The need to protect the new nation from invasion, protect the sea lines of communications for trade and in the future to project national power influenced Congress to raise and maintain a naval force to accomplish these tasks.

The Marine Corps approaching the 21st Century has endured because it embraces two principles. First, as a part of the Department of the Navy, the Marine Corps recognizes its unique relationship with the United States Navy and accepts its naval heritage. Second, the Marine Corps has adapted to the ever-changing face of conflict, to include national strategic policy and technological innovations. These principles have prevented it from either being abolished as a luxury the nation could not afford or being absorbed into the United States Army as additional infantry due to a redundancy in combat capabilities.

Statement of the Problem

Once again, the Nation and the Marine Corps are faced with a changing world and have begun to develop new doctrine to meet the challenges and opportunities in order to survive. This new doctrine, titled Operational Maneuver from the Sea (OMFTS), attempts to define how the Marine Corps will operate against future threats. The focus of this monograph is to answer the research question, "Will the new doctrine, OMFTS, change the capabilities and organization of the forward-deployed Marine Air Ground Task Forces (MAGTFs) called Marine Expeditionary Units (Special Operations Capable) (MEU (SOC))?" The methodology to answer this question correctly is in four parts. First, the monograph discusses how the Marine Corps has always adapted to changes in conflict through historical examples. This discussion covers the development of initial operating doctrine, expeditionary and amphibious doctrine, maritime prepositioning doctrine, and finally the current doctrine, "Forward from the Sea." Second, the monograph explains what challenges the Marine Corps thinks it will face and why it needs to develop the new doctrine Operational Maneuver from the Sea (OMFTS). This discussion covers "Chaos in the Littorals," the Marine Corps vision of conflict in the future and three of the seventeen tenets of OMFTS. Third, this monograph describes the history, purpose, capabilities and organization of the present day MEU (SOC). Finally, this monograph analyzes the present MEU (SOC) structure and organization and determines if it needs to change in order to meet the requirements of OMFTS.

The Marine Corps' evolution of doctrine, coupled with its determination to maintain its naval heritage, has made it an important instrument to implement the National Security Strategy of a maritime nation dependent on the sea to conduct commerce and project power. The venerable MEU (SOC)s have proven their worth in meeting crisis in the latter half of the twentieth century using the current doctrine of Forward from the Sea; yet like its rich history, the organization must adapt to a changing world. Before changing for the future, a glimpse of the Marine Corps' past capabilities to adapt is required.

II. A History of Adaptation to Meet the Future

Ships Rigging to Expeditionary Operations

The Marine Corps initiated operations as a service in March 1776, but marines have existed since the time of Athens. Soldiers served aboard ship, acting in conjunction with ship operations by defending the ship and providing landing parties. Why did the United States create a Marine Corps? In 1775, the Continental Congress was engaged in developing the means to gain independence for the Colonies and create a nation. Although their foe, Great Britain, was the greatest naval power on earth, the Congress understood the need for naval power and created the Navy. Heavily influenced by the Royal Navy, it mimicked most of its operational procedures to include the creation of a Marine Corps. The United States Marine Corps took its initial operating procedures from the Royal Marines. Formed in 1664 as the " Lord High Admiral's Regiment,"[4] the Royal Marines' mission consisted of the following:

> Their primary mission in ship to ship combat was to pick off officers and gun crews...with musket fire, to repel boarders, and to serve as substitute gun crews. They were also part of a ship's landing party for operations ashore. Under cruising conditions, the marines enforced ship's regulations about fires, thievery, and unlawful conduct by sailors. Their ultimate function was to protect the ship's officers from a mutinous crew.[5]

Fortunately, the American Marines (and Navy) inherited a sound doctrine from their enemy. If there was any country from which to learn a method of naval warfare, Great Britain in the eighteenth century was that country.

An example of the new maritime doctrine was seen in action on March 3, 1776, when Commodore Hopkins led one of the first operations of the newly-formed Continental Marines, which defined how Marines operated until the end of the nineteenth century. Tasked to break the British blockade of the southern States, for reasons unknown, he decided to avoid contact and raid the British-held Bahamas for war supplies. The 230 Marines under Captain Nicholas seized two forts at New Providence Town and returned with all the cannon and powder on the island, completing the first amphibious operation conducted by American Marines.[6]

Movement Toward Expeditionary Forces

In the late 1880's, the role of the Marines began to expand from strictly ship's detachments to one of expeditionary forces. In 1885 Panamanian secessionists rebelled, threatening the United States' railroad project in that country. The Navy was tasked to intervene but the mission was too large for the two ship's detachments on station to handle. The Department of the Navy stripped the Marine barracks (large Navy yards and stations had permanent companies of Marines called barracks) and gathered a force of over 700 officers and men in an ad hoc battalion. Departing on 3 April 1885, the Marines patrolled the towns along the railroad, guarded the railway and discouraged mob violence and looting until their return in late May.[7]

These expeditions expanded as America became an imperial power after the defeat and acquisition of Spanish colonial possessions. Missions such as the protection of the China legation in 1899-1900 became two battalions and then an entire brigade in 1920. A Marine regiment served in Cuba for nearly three years during the second intervention of 1906-1909.[8] These operations and many more began to expand the Marine Corps influence as its size grew from 2200 in 1875 to over 10,000 in 1916.

The end of the nineteenth century brought the age of steel and coal powered ships, but more importantly it brought a new naval doctrine written by U.S. Navy Captain Alfred T. Mahan. This doctrine changed the Navy from single ships cruising the world to fleet actions. The U.S. "battleship" Navy was born. To protect America's global possessions and prepare for fleet engagements with possible belligerents, the Navy needed forward-operating bases for fueling and repair. In 1900, the Navy began to inquire how a Marine force could be rapidly transferred to an advance base to occupy it and defend it against attack, therefore denying its resources to the enemy while providing adequate stations for the Navy to carry out a naval campaign.

The Commandant of the Marine Corps, Colonel Charles Heyward, was faced with a dilemma. His force was spread thin performing the traditional duties outlined above, and did not possess the manpower to meet the Navy's request. If he pulled the ship's detachments, as many Navy officers

desired, he might lead the Marine Corps into abolition. By diverting personnel from the traditional Marine duties and creating standing expeditionary forces, he could be viewed as redundant with the Army. If he failed to adapt to a changing world where America's naval strategy had shifted due to Mahan, then he could face eventual extinction by becoming irrelevant.[9]

Heyward's solution was to develop doctrine for Advance Based Force operations and institute changes in training to meet the needs of the doctrine, but did not man the units in accordance with the Navy's expectations. Not until November 1913 was the 1st Advance Force Brigade organized and evaluated in Culebra, Puerto Rico (a second brigade was formed on the West Coast). The concept proved valid and the Marine Corps began to budget for personnel and equipment with this doctrine. The only operational use of the advance base forces was a three-day pacification mission in Vera Cruz, Mexico in 1914. The Marine Corps had adapted once again to the change in naval conflict.[10]

The Development of Amphibious Doctrine

The end of World War I brought a new strategic setting when Japan seized former German colonial possessions in the Pacific. The naval balance, although placed in the favor of the United States and Great Britain after the Washington Conference, still placed Japan a close second. The Marine Corps was challenged again to adapt to survive since its participation in World War I had been primarily as a conventional land force. Three major changes took place in the Marine Corps in the next two decades that would change the face of warfare and how the Marine Corps operated. First was the study and development of amphibious operations that produced sound doctrine. Second was the creation of the Fleet Marine Force. Finally, the third was a dedicated Equipment Board to conduct research and development on amphibious equipment was established.

In 1922, the Commandant, Major General John A. Lejeune, changed the Advance Based Forces to the Marine Corps Expeditionary Forces (MCEF), and began to focus the Marine Corps on seizing advance bases in support of War Plan ORANGE, war with Japan. The MCEF from the East Coast began to conduct a number of Fleet Landing Exercises (FLEX), of which there were seven in

all.[11] The initial exercises quickly demonstrated the problems with present amphibious and landing force doctrine and equipment although the operations were primarily defensively oriented.

General Lejeune's vision and guidance had planted the seed for the 1930's, when the FLEXs and hard work began to produce results. The establishment of the Marine Corps Schools (MCS) based at Quantico, Virginia, began the intellectual exchange that eventually developed the first amphibious assault doctrine entitled *Tentative Manual for Landing Operations*. The MCS in Academic Year 1932-33 handed out copies of the failed Gallipoli campaign entitled *Military Operations, Gallipoli Vol. I* in order to gain an understanding of the problem faced by amphibious planners.[12] The MCS also worked in conjunction with the Naval War College on a series of Advanced Base Problems to better understand the unique requirements of the Navy and Marine Corps for successful operations.

On 7 December 1933, by General Order No. 241, the MCEFs became the Fleet Marine Force (FMF) for the sole purpose of supporting the Fleet and would fall under the command of the Commander in Chief, U.S. Fleet.[13] Oriented on operations with the Fleet, they would not be sent on garrison duty nor take over fixed defenses. The FMF, although not initially trained in amphibious *assault* operations, would become the mainstay in validating the new amphibious doctrine during the 1930's.

In 1933, the Commandant established a Marine Corps Equipment Board composed of eleven members to recommend the types of equipment best suited for the needs of the Marine Corps. The Board, in conjunction with the Navy's Bureau of Ships, was primarily concerned with three types of boats to accelerate ship-to-shore movement in the face of a determined enemy, which were the landing craft, amphibious tractors, and lighters.

Overall, the creation of sound amphibious doctrine, the evolving FMF and the Equipment Board's integration with both the Navy and the civilian contractors produced a revolution in tactical amphibious operations. For the Marine Corps and the rest of the Allied powers in World War II, a new method for power projection had been established. The sharp shooters were out of the rigging for good!

The Maritime Prepositioning Force (MPF)

The concept for the Marine Corps to preposition combat equipment and thirty days sustainment aboard merchant shipping was a direct result of the inability of the United States to project ground power into the Persian Gulf region. In 1977, the National Security Council reported that the U.S. was not prepared for military responses to crises in the Third World.[14] After the Shah of Iran was deposed in 1979, the Iranian hostage crisis highlighted the need for the U.S. to possess a capability to overcome the absence of U.S. military bases in the Persian Gulf region to build up combat power rapidly.

The purpose of prepositioning combat equipment on merchant shipping is to combine the capacity and endurance of sealift with the speed of airlift to rapidly build up combat power in areas of conflict. In 1999, the Marine Corps leases thirteen ships to create three brigade-size equipment sets. Each set is capable of supplying one Marine Expeditionary Brigade (MEB), consisting of 15,000 Marines. The three Maritime Prepositioning Squadrons (MPS) are assigned to Diego Garcia (MPS-2) near the Persian Gulf, the island of Guam (MPS-3) in the western Pacific Ocean and the eastern Atlantic Ocean (MPS-2). The two disadvantages to MPF operations are the requirements for a secure port for offloading and a nearby airfield to allow for the deployment of accompanying manpower.

The first operational use of the MPF was in August 1990 during Operation DESERT SHIELD. MPS-2, located in Diego Garcia, deployed to Al Jubayl, Saudi Arabia and provided the necessary support for the 7th Marine Expeditionary Brigade (7th MEB) from Camp Pendleton, California. It took 259 C-141s to airlift the personnel of the brigade to Al Jubayl, Saudi Arabia, where they were combat ready in four days with 123 tanks, 425 heavy weapons, 124 aircraft and over 15,000 Marines. MPS-3 deployed from the island of Guam, arrived on 25 August 1990, and began immediately offloading equipment for the 1st MEB from Hawaii. On 2 September 1990, Lieutenant General Boomer formed the two MEBs into the I Marine Expeditionary Force (I MEF) (A corps size combat organization).[15]

The MPF concept, proven in a crisis, was a monumental success in rapidly building up combat power where no forward bases exist. When the National Security Council determined it needed better means to react to Third World crises where U.S. vital interests were at stake, the Marine Corps answered with MPF.

The End of the Cold War and "Forward from the Sea"

A fundamental shift in the National Security Strategy (NSS) was announced in 1990 by President George Bush that reflected a shift from a global threat to one of regional challenges and opportunities that used a "Base Force" concept instead of forward-deployed forces. The principles of this strategy were strategic deterrence and defense, forward presence, crisis response and reconstitution. This shift caused the Navy and Marine Corps to once again refocus their naval strategy. In 1989, the Soviet Union ceased to threaten the Navy's dominance of the sea's lines of communication across the globe.[16] The Secretary of the Navy, in conjunction with the Chief of Naval Operations and the Commandant of the Marine Corps, refocused how the Department of the Navy supported this new NSS by developing new doctrine, entitled "From the Sea" (published in 1992) and "Forward from the Sea" (an amplification published in September 1994), which focuses naval forces to project power *from* the sea toward the land instead of conducting warfighting *on* the sea. The primary difference between "From the Sea" and previous doctrine was in focusing naval operations away from a global maritime perspective, and toward projecting power from the sea onto the land. But *what does doctrine provide* for the Marine Corps and why must it be altered?

The Marine Corps capstone doctrinal publication, Marine Corps Doctrinal Publication – 1 (MCDP-1), *Warfighting,* defines doctrine as a teaching of fundamental beliefs of the Marine Corps on the subject of war, from its nature and theory to its *preparation* and *conduct* (italics are author's).[17] Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, defines doctrine as "Fundamental principles by which the military forces or elements *thereof guide their actions* (italics are author's) in support of national objectives. It is authoritative but requires judgement in application."[18]

In other words, the Navy and Marine Corps needed to develop a new strategic concept to prepare, conduct and guide their operations toward projecting power in the areas where the sea and land meet, called the littorals. What are the littorals and why do they require a new operational strategy? The littoral region contains both sea and land. The physical and operational characteristics of the littorals are described as confined and congested waters and air space that is occupied by friends, adversaries and neutrals alike. This creates complex problems when certain nations can acquire technology that is as sophisticated or better than that currently possessed by the U.S.[19] An example is the use of diesel-powered submarines in the Persian Gulf. Although limited in global reach, they are quiet and difficult to track when underwater on battery power due to the confined waters of the Persian Gulf. Another is the sea-skimming Silkworm surface-to-surface missile or the Exocet antiship missile launched from ships or aircraft. These systems are readily available on the open arms market and provide a potent threat when applied in depth. As the 1986 shooting of the USS Stark by an Iraqi Exocet missile in the Persian Gulf proved, the Navy and Marine Corps must adapt to meet these challenges.

"From the Sea" describes four key operational capabilities that naval forces must successfully execute. They are command, control and surveillance; battlespace dominance; power projection; and force sustainment. [20] First is the need to structure command and control capabilities to promote efficient joint and combined operations. This integrates the unique capabilities of naval and joint forces, creating a synergistic effect from the sea toward the land to enhance power projection. Second is battle space dominance, which is defined as the means that naval forces can maintain access from the sea to permit the effective entry of equipment and resupply. Third is power projection: using dominance of the battlespace in the littorals with an effective command and control system, naval forces are mobile, flexible and utilize technology to mass strength against weakness. The capability to project power must be conducted either unilaterally or jointly, to ensure all service capabilities can be integrated. Last is the ability to sustain the force indefinitely. Using sea-based logistics of forward-

deployed forces or employing the MPF to build combat power rapidly allows the U.S. to maintain a continuous presence where necessary to influence situations.[21]

The Department of the Navy had to develop a new way of conducting operations. First, to meet the requirements of "From the Sea," the Navy and Marine Corps recognized that many necessary capabilities were inherent within the naval service already, such as:

1) Unobtrusive presence
2) Control of the seas
3) Extended and continuous on-scene crisis response
4) Projecting precise power from the sea
5) Providing sealift for larger scale contingencies

These capabilities were key in meeting President Bush's NSS principles of strategic deterrence and defense, forward presence, crisis response and reconstitution.[22] An example of these operational characteristics in action before "From the Sea" was the 1990-1991 Non-Combatant Evacuation Operation (NEO) in Liberia named Operation SHARP EDGE. The Amphibious Task Force (ATF), comprised of the 22nd MEU (SOC) and the Saipan Amphibious Readiness Group (ARG), remained in international waters for over two months while both evacuating U.S. citizens and foreign nationals. They also provided additional security and environmental support to the U.S. Embassy in the capital city of Monrovia. The ATF was relieved by another ATF (26th MEU (SOC)), which remained until January 1991.[23]

The Navy and the Marine Corps, which has been focused on expeditionary operations throughout its history, had to make changes in order to implement the new doctrine of "From the Sea." Command and control, battlespace dominance, power projection and force sustainment all affected the way each force would operate with the other in the future. The Marine Corps, experienced in doctrinal amphibious operations, had to develop new operating procedures to integrate the power projection capabilities of such assets as the aircraft carrier and its potent air wing or surface action ships and their long-range cruise missiles. The Navy had to refocus their doctrine to use these existing assets in support of power projection from the sea. To accomplish this the answer was not in new equipment but a new operational mindset, *expeditionary operations*.

Expeditionary Operations and the Emergence of Naval Expeditionary Forces

The Department of Navy determined that if it was to succeed in the post-Cold War environment it must provide flexible, forward-deployed forces tailored to meet the geographic CINCs needs. With a declining budget and an immediate need, the Navy and Marine Corps developed the Naval Expeditionary Force (NEF). NEF's were not standing organizations, but were formed in a crisis situation incorporating an expeditionary mindset. This mindset is based in the term "expeditionary," which was defined as forces organized to accomplish a specific objective in a foreign country.[24] NEF's possessed characteristics of versatility, flexibility, expandability, rapid deployability, and sustainability.[25] NEF's provided unobtrusive forward-presence, which might be intensified or reduced on short notice using the existing forces and equipment such as the aircraft carrier battle groups (CVBGs), attack submarines, amphibious readiness groups (ARGs) with embarked Marines, maritime patrol aircraft, surface combatants, mine warfare and Navy Special Warfare Forces (NSWF). All of these units with their unique capabilities existed prior to "From the Sea" but now must develop standard operating procedures (SOPs) and doctrine in order to operate together in support of a common goal in a common operational framework.[26]

A recent example of a NEF operation was the rapid buildup in the Persian Gulf for Operation DESERT FOX in 1998. Two aircraft carriers, an amphibious group with an embarked MEU (SOC) and a surface action group (SAG) operating independently in support of a United Nations blockade against Iraq were quickly combined under one command to form a NEF. This provided 5th Fleet a formidable response to Saddam Hussein's challenge.[27] This NEF did not operate unilaterally but launched strikes in conjunction with U.S. Air Force assets and landed the MEU (SOC) to support U.S. Army ground forces in Kuwait.

As shown above, the NEF not only acts unilaterally, but also as a member of a joint team. They can act as the Joint Force Commander (JFC) if the mission is primarily maritime, or hand off the operation if it shifts inland. Another capability the NEF can provide a JFC is to seize or defend forward ports and airfields to enable follow-on deployment of U.S. Army or U.S. Air Forces. Also,

NEFs can integrate with other joint expeditionary packages such as Air Expeditionary Forces (AEFs), Army infantry, airborne or air mobile forces, Special Operating Forces (SOF), U.S. Coast Guard assets and Allied/ Coalition forces.[28]

Conclusion

The Marine Corps has demonstrated over its history that it can adapt to changes in the National Security Strategy and changes in operational and technological advances. From inheriting a solid doctrine from the British Royal Marines, to developing the tactics, techniques and procedures for successful combined arms amphibious assaults, the Marine Corps has proven itself a force that can change to meet warfare's new requirements while maintaining its core traditions. The Marine Corps has been a leader in creating revolutionary doctrine such as the development of amphibious warfare and MPF operations in order to directly meet the needs of the Nation as a "Force in Readiness." Maintaining its expeditionary nature, the Marine Corps and Navy have joined forces to form some of the most fully-integrated, forward-deployed forces with "Forward from the Sea". Now a new challenge has emerged and the Marine Corps cannot rest on its laurels. It must look to the future, and that future is one filled with uncertainty. The Marine Corps must develop new doctrine maximize on technological innovations and face a new threat.

III. Chaos in the Littorals and the Emergence of Operational Maneuver from the Sea (OMFTS)

We require for the guidance for our naval policy…something of wider vision than the current conception of naval strategy, something that will keep before our eyes not merely the enemy's fleets or the great routes of commerce, or the command of the sea, but also the relations of naval policy and the action to the whole area of diplomatic and military effort.[29]

Julian Corbett

Chaos in the Littorals

The demise of the Soviet Union had two major impacts on the U.S. and its Department of Defense (DOD). First was the removal of a peer competitor who actually threatened our national existence. Second was the proliferation of dormant conflicts that were previously suppressed by the alignment with a Superpower. The Marine Corps and Navy have classified these conflicts as "Chaos in the Littorals".[30] "Chaos in the Littorals" refers to the ever-increasing population move toward urban areas near the sea. Over 80% of the world's capitals, three-fourths of the world's population (4.5 Billion) and nearly all of the world's international markets lie near the coastal regions. As the world is driven towards globalization, with raw materials and finished goods moving by sea, this littoral area will increase dramatically in importance, possibly becoming the next area of future conflict.[31] This is reflected in the National Security Strategy (NSS), which has defined a policy of engaging nations to increase access to markets and stabilize world economies, which assist struggling democracies to succeed.[32]

Why the chaos and what is driving it? As the heavy hand of communism subsides from much of the world, traditional rivalries have reemerged to create a "Breakdown of Order." Examples are the recent conflicts in the Balkans, Somalia, Haiti and now East Timor. The "Breakdown of Order" is defined as established governments losing their monopoly on violence. Ethnic groups, clans, street gangs and non-state actors who owe their allegiance to ideas not associated with nations are all waging war to further their own interests.[33] As the sole Superpower, the U.S. has taken a leadership role in containing these crises to prevent their producing an ever-widening circle of destabilization. The

means in which national power is utilized to produce results include diplomatic, informational (political), economic and in many recent cases, military power. The most familiar form for military intervention is Peacekeeping Operations, in conjunction with allied nations such as NATO, or loose coalitions under the auspices of the United Nations such as the Unified Nations Task Force (UNITAF) in Somalia. Yet these operations have proven complex and beyond the scope of Marine Corps doctrine developed during World War II and refined up to the1990's, which focuses on threats that posed symmetrical challenges.

Like the inter-war years of revolutionary thought and development in the 1930's, the Marine Corps envisions a future world of challenges and opportunities. The *challenges* are complex conflicts that involve asymmetrical threats, while the *opportunities* are based in emerging technologies that will offer enhanced capabilities. To capture this rare opportunity the Marine Corps has begun to develop a new operational doctrine that will carry it into the 21st Century. Entitled Operational Maneuver from the Sea (OMFTS), this concept expands the current doctrine of Forward from the Sea by coupling it with maneuver warfare, the warfighting philosophy of the Marine Corps. Maneuver warfare is not new, but applying its tenets to a force operating from the sea can create a powerful effect for unsuspecting opponents. Maneuver warfare is defined as "A warfare philosophy that seeks to shatter the enemy's cohesion through unexpected actions which create a turbulent and rapid deteriorating situation which the enemy cannot cope."[34]

The development of OMFTS focuses on exploiting the Marine Corps core competencies, which are expeditionary readiness, combined arms operations, expeditionary operations, sea-based operations, forcible entry from the sea, and reserve integration.[35] The forward-deployed MEU (SOC) is the best example of these core competencies at work in the 1990's. Although limited in size, they demonstrate how the Marine Corps operates and the overall expeditionary ethos inherent in the naval service.

OMFTS contains seventeen warfighting concepts that will change how naval forces project power from the sea toward the shore. These seventeen concepts will prepare the Department of the Navy to train, organize and equip naval forces for the future by using present and future capabilities, such as operational Landing Craft Air Cushioned (LCAC) and the soon to be acquired MV-22 Osprey tilt rotor aircraft. The seventeen concepts are:

1) Comprehensive Command and Coordination
2) Ship to Objective Maneuver (STOM)
3) Sustained Operations Ashore (SOA)
4) Sea-Based Logistics
5) Maritime Preposition Force (Future)
6) Advanced Expeditionary Fires
7) Military Operations in Urban Terrain
8) Military Operations in a Riverine Environment
9) Joint Concept for Nonlethal Weapons[36]
10) MAGTF Aviation
11) Force Protection
12) Naval Health Force Protection
13) Intelligence
14) Information Operations
15) Antiarmor Operations
16) Mine Counter-Measure
17) Other Expeditionary Operations

Although all of these concepts will have an impact upon the present day MEU (SOC), all but three are beyond the scope of this paper. These three concepts, Comprehensive Command and Coordination, Ship to Objective Maneuver and Sustained Operations Ashore could *reduce* or *expand* the twenty-nine capabilities presently maintained by the MEU (SOC).

Comprehensive Command and Coordination

OMFTS assumes a complex operating environment that will require a dynamic system of command and control to ensure the tenets of maneuver warfare can be applied by leaders and subordinates alike. The concept for Comprehensive Command and Coordination is to provide the commander with an ability to go beyond a1990's Command and Control (C2) and exploit the entire spectrum of our national power to conduct military operations in support of national interests. Comprehensive Command and Coordination also focuses on the subordinate leader who must make rapid decisions in a fluid environment. Two concepts, "Reach-back" and "Intuitive Decision Making," enable the commander and his subordinate leaders to operate in, and overcome, uncertainty. Overall, the stated aim of MAGTF Comprehensive Command and Coordination is to empower commanders at

every level to focus resources upon a mission, while enabling inventiveness and initiative of subordinates.[37]

Reach-back – Expanding the Commander's Tool Kit. Commanders can go beyond their organization for resources by utilizing reach-back capabilities to focus the correct or most accurate means to solve complex problems. Reach-back is described as a "Direct Interconnectivity" that can access sources such as other military organizations, other government organizations, non-government organizations, academia and business. Not only will commanders reach-back to the U.S., they will also reach-out or forward to adjacent units/ organizations that are in the area of interest. This will allow the commander to reduce uncertainty surrounding an enemy's capabilities and intentions, to rapid identification and dissemination of critical adversary biases or thought processes. An example could be as simple as a building design for direct action to an in-depth psychological analysis of a local antagonistic leader.[38]

The results of reach-back will take on many forms to provide the commander a greater realm of the possible in solving complex problems. First is information, which provides the commander with intellectual, operational, experiential, medical and cultural resources. This direct access can give the MAGTF commander a better understanding by not having hidden agendas attached to it. Imagine if a MEU (SOC) commander could talk directly to the Center for Disease Control (CDC) in Atlanta, Georgia, to inquire about the health issues in a possible future Area of Operations (AO). MAGTF commanders, utilizing pressure from economic, commercial, academia or Non-government Organizations (NGOs), could exert influence to affect the environment or activities. Another result could be tapping into established networks, such as "Organic Networks" of people who interact regularly through business or other forms of contact with a potential adversary or coalition partner. Other forms of reach-back could be to military forces that provide specialized skills to augment the MAGTF for a special mission. Finally, MAGTF commanders can augment their ability to equip, operate, maintain and support MAGTF activities through mission-specific items. These could include additional medical capabilities, environmentally-tailored equipment such as cold or hot weather gear,

or other assets to support unique missions like operations in an urban environment.[39] Overall, as OMFTS matures, a MAGTF commander must have access to a numerous sources to assist his decision making and execution of operations. A mature network of established contacts, which operate under the same tenets, will give him the required tools to meet the complex environment of the future while being forward-deployed.

Empowering the Subordinate Leader. The Marine on the ground must define the situation and take action to retain the initiative or he will be reacting until his position is no longer tenable. As OMFTS unfolds, junior leaders will maneuver their dispersed forces from over the horizon directly to their objectives. There will be no operational pauses to establish a beachhead line, but continuous operations to generate momentum and tempo to ensure the enemy has to react to landing force operations, hence maintaining the principles of maneuver warfare. How will junior leaders be affected? Intuitive decision making, mutual understanding with limited exchange of data and implicit communications, will ensure that the relationship between the commander and his subordinates no longer require the "control" of 1999, but a capability to act independently while conducting broad coordination between elements.[40]

Intuitive decision making relieves the commander of cumbersome analytical models that require huge amounts of information and analysis and allows him to rapidly produce an effective (but not perfect) plan. Sacrifices in certainty and precision will be made to increase freedom of action through speed and agility. The keys to making rapid decisions to build tempo will be the commander's experience, judgement, and intellect. "Understanding is the highest form that information takes. It connotes deep awareness of the critical factors in any situation."[41] *Mutual understanding* focuses the commander and the subordinate to appreciate the problem and solution in the same manner with a shared situational awareness. *Implicit communications* could be defined by the phrase "A picture says a thousand words." In the age of digital information, human interaction is critical for commanders and subordinates to gain that feel of the situation. This allows each of them to convert information into mutual understanding to better allow for their intuition to make the right decision.[42]

Overall, OMFTS's focus is to create a comprehensive command and coordination system for the MAGTF that will meet the challenges of the twenty-first century. Technology may enhance capabilities, but it is still leaders or humans who must make decisions. To operate in a complex, high-tempo operation, they must have access to pertinent resources beyond the scope of their command by reaching back, adjacent and forward to wherever it is necessary to get the answer. They then must embed the control of their subordinates within the command function by developing intuitive decision making, mutual understanding and implicit communications to protect freedom of action.

Ship to Objective Maneuver (STOM)

The purpose of STOM is to rapidly maneuver from amphibious ships over the horizon (approximately twenty-five to fifty nautical miles) directly to objectives ashore. This differs from past amphibious operations, where forces initially under the commander, amphibious task force (CATF) conducted ship-to-shore movement and seized a beachhead of limited depth. Once enough combat power was established ashore, the commander, landing force (CLF) maneuvered to the objective. One reason for this operating procedure has been slow-speed watercraft and aircraft with limited range, which required an intricate landing plan to shuttle the appropriate combat power ashore from ships operating in close proximity to the beach.[43]

The six principles of STOM are first, focus on the operational objective to strike at the enemy's critical vulnerability and render him ineffective. Second is to treat the sea as maneuver space to seek out weak or undefended points for penetration. Third is to gain superior intelligence and utilize deception to drive option selections and maneuver execution. This will not only identify gaps in an enemy defense but also create them. Fourth is to apply strength against weakness in order to exploit identified gaps and bring precise combat power to bear at this point. Fifth is to create overwhelming momentum and tempo by maneuvering from ships to objectives faster than the enemy can react. This keeps the enemy reacting to a MAGTF/ NEF action and allows the landing force commander greater freedom of maneuver. Finally all elements are *integrated* to accomplish the mission by employing all naval assets of the naval expeditionary force in support of STOM. As "Forward from the Sea" focused

certain existing capabilities from blue water operations toward the littorals, STOM will further integrate these and future capabilities in projecting combat power ashore.[44]

With the emergence of the Navy and Marine Corps procurement programs, three technological breakthroughs provide the means for STOM operations. The first is the Landing Craft Air Cushioned (LCAC), a hovercraft which can access approximately 70% of the world's shorelines due to its sea-skimming design. The second is the MV-22 Osprey tilt rotor aircraft, which will replace the vintage CH-46E medium lift helicopter and provide a long range (200-500 nautical mile radius, air-refuelable) medium-lift capability. The last is the Advanced Amphibian Assault Vehicle (AAAV), which will provide rapid ship to shore tactical mobility in an armored vehicle. All three will use Global Positioning System (GPS) technology to allow dispersed operations while providing precision location. Operational phases, pauses, and reorganizations will no longer be required, enhancing speed and agility of the landing force. [45]

The complex threat envisioned in "Chaos in the Littorals" will possess a range of defensive options. The low end of the spectrum, which requires little technological advancements, will contain steel and concrete obstacles, mines, and artillery. The higher end technological threats such as surface-to-surface missiles, aircraft, submarines and limited, integrated air defense systems (IADS) will become more prolific as regional powers attempt to gain influence over their neighbors or the entire region. STOM offsets these threats by operating from Over the Horizon (OTH) within a combined naval expeditionary force that can fight and win throughout the spectrum of conflict. OTH is normally defined as twenty-five to fifty nautical miles from the coast, where visual observation cannot take place. The sea has become maneuver space to expand the battlefield in order to spread an adversary thin or causing an adversary to develop an operational reserve. In the first case he will set himself up for a penetration of a weakened front, referred to as a gap. In the second case his consolidated forces will become easy to target for sea-based or joint precision fires. In each case naval forces will apply precise combat power and directly attack a critical vulnerability that could lead to the complete disruption or collapse of an enemy force.[46]

Sustained Operations Ashore

Most decisive campaigns have been decided by conducting sustained operations ashore. Amphibious operations have traditionally *enabled* these operations by facilitating the introduction and accumulation of manpower, command and control, material and sustainment. On 6 June 1944 the invasion of Normandy was an example of just such an operation. The Marine Corps has participated in numerous sustained operations ashore with the U.S. Army and forces of allied or coalition forces throughout this century. An example is the 4th Marine Brigade that served as part of the 2nd Infantry Division during World War I or the I Marine Expeditionary Force during Desert Storm in 1990-91. Sir Julian Corbett, a turn of the century naval theorist, wrote in his book *Some Principles of Maritime Strategy* that because people lived on land, decisive results could only be concluded on land, albeit dependent upon control of communications by sea.[47] Yet the Marine Corps envisions these decisive operations ashore will not reflect those of 1999.

With the "Chaos in the Littorals" scenario mentioned in OMFTS, the battlefield will change dramatically. The purpose for the SOA concept is "The Battlespace will be non-linear and lack large easily targeted enemy formations. Physical occupation of large terrain segments will be less important than focused attacks aimed at reducing the enemy's will to fight."[48] These focused attacks will give commanders greater freedom of action but reduce the "secure" rear area where combat support and combat service support operations usually have been conducted. How does the Marine Corps envision the MAGTF operating differently while still offering the Joint Force Commander a credible, flexible force?

Operational Maneuver Element (OME). The MAGTF, operating as an OME, will enhance the JFC's flexibility by providing a force that can be "employed as an independent formation, relying on its organic capabilities and exploiting connectivity throughout the joint force to *acquire* and *extend* to others external support as required."[49] The MAGTF's self-sustaining, combined-arms force with integrated air and ground under one commander makes it ideally suited as an OME for three types of operations.

First as an *enabling force*, the MAGTF operates closely to its traditional role of forcible entry. Enabling operations would divert enemy commander's attention from the main effort or possibly reorient his forces entirely. The key to enabling operations is to exploit the freedom of maneuver at sea. Enabling operations could also be as simple as providing command and control capabilities for the assembly of a joint force or as complex as seizing forward operating areas.

Second, using Comprehensive Command and Coordination, the MAGTF identifies gaps or critical vulnerabilities that could lead to direct attacks on the enemy center of gravity for *decisive action*. Decisive actions for the MAGTF, working within a JTF, span the spectrum of conflict, such as the successful evacuation of American citizens from an untenable urban environment to the physical destruction of large military forces. One example of a decisive action was the amphibious operation conducted at Inchon in 1950. The 1st Marine Division, as part of X (US) Corps, attacked the critical vulnerability of the North Korean Army's lines of communication, which caused their total collapse and turned the tide for that part of the Korean War.

Finally, as an OME, the MAGTF can operate as an *exploitation force* within the JTF or NEF. Critical vulnerabilities and gaps initially may be difficult to identify or attack in the opening phases of a campaign. As the enemy reacts to joint force operations (Ground or Air), he will produce vulnerabilities that if properly identified by the JFC could be exploited by the MAGTF acting as an OME. The key to an OME is sea-basing, especially in the areas of combat support and combat service support. This allows the maneuver commander greater freedom of action by removing the linear battlefield structure and freeing up lift assets from logistics to maneuver forces. To aid the JFC in how best to employ the MAGTF as an OME, a Marine Forces Component Commander (MARFORCOM) will physically reside within the JTF. One such case was during World War II in the battle for Okinawa. Generals' Alex A. Vandergrift and Roy Geiger USMC proposed an amphibious operation with III Amphibious Corps as an OME in the rear of the Japanese lines in order to bypass the Shuri Line as an alternative to the direct attacks. Although rejected by General Buckner, Commanding

General 10th Army, he was well informed on the capabilities of employing the Marines unique capabilities.[50]

Other requirements to successfully implement SOA will be to implement the Comprehensive Command and Coordination system, planning, intelligence, mobility, firepower and logistics. Comprehensive command and coordination will ensure there is a common operational picture, that simultaneous operations are integrated, and the force can respond to new opportunities rapidly. The planning process must respond to situations by rapidly planning complex operations and quickly transitioning to execution. Timely and focused intelligence support is critical to the conduct of operational maneuver to ensure gaps and critical vulnerabilities are identified. Operational maneuver requires strategic and operational maneuver to strike across the entire area of operations and then posses tactical mobility to gain a positional advantage over the enemy. Strategic maneuverability will be a system of amphibious ships, MPF ships and airlift to access the theater. Operational mobility is offered by the ships and landing craft of the amphibious task force, aircraft of the Aviation Combat Element (ACE), and high-mobility of the Ground Combat Elements (GCE) vehicles. Fires are essential to achieve decisive effects on the enemy. OME requires both organic and supporting fires to be accurate, whether lethal, non-lethal or a combination of the two. Sea-basing of supporting fires minimizes their logistical requirements; yet maneuver forces must retain sufficient organic firepower to provide for their own force protection. Finally logistics must be focused and tailored for maneuver forces operating dispersed ashore. This sea-based approach with tailoring of logistic packages will minimize combat service support ashore.

Overall, sustained operations ashore are tied to sea-basing all the elements that could minimize a maneuver commander's freedom of action yet still providing him responsive support. The sea, as in the past, will offer the MAGTF commander both protection and maneuver space.

Conclusion

OMFTS is a dynamic new doctrine that will shape how the Marine Corps conducts operations in the future. Comprehensive command and coordination, STOM, and SOA will redefine how naval

forces will use the sea to projected power. By the year 2010, naval forces will no longer conduct beach seizures for the purpose of building up combat power ashore for maneuver and decisive action. Decisive action will come from the sea and be supported and sustained from the sea. As "Forward from the Sea" focused the Department of the Navy on projecting power toward the land, OMFTS doctrine will demonstrate *how* it is done. With the advent of the MV-22 and AAAV, coupled with the LCAC and new the *USS San Antonio* class (LPD-17) amphibious ship, naval forces will have a far greater reach in all aspects of the battlespace while protecting the force. Once again, the Marine Corps has developed new doctrine and adapted to a changing world, but has yet to apply it to an organization that will be required to execute OMFTS. The "Crown Jewel" of the Marine Corps and a major response force for geographic CINCs, the MEU (SOC) will be the first MAGTF to receive the new technology and test the doctrine. This doctrine's affect on the current MEU (SOC) is unknown and requires a look at the organization and capabilities of the MEU (SOC) of 1999.

IV. The MEU (SOC) Organization and Capabilities

History of the MEU (SOC)

In 1986, the Commandant, General P. X. Kelly, replaced the temporary formation of amphibious ground-air units of various strengths with the permanent MAGTF concept and stood up fourteen permanently-manned headquarters. These headquarters consisted of three Marine Amphibious Forces (MAF), six Marine Amphibious Brigades (MAB), and five Marine Amphibious Units (MAU).[51] In the late seventies and early eighties, terrorist attacks were drawing the focus of the Department of the Defense. In 1983, the Secretary of Defense directed each military service and defense agency to review its existing special operations capabilities (SOC) and develop a plan for achieving the level of special operations capability required to combat both current and future low intensity conflicts and terrorist threats. The Marine Corps instituted an aggressive SOC training program to optimize the inherent capability of MEU's to conduct selected maritime special operations.[52]

In the 1990's, the MEU (SOC) has proven its worth through numerous operations and has become a mainstay for geographic CINCs as a Flexible Deterrent Option. The MEU (SOC) has responded across the spectrum of operations, from smaller scale contingencies (SSC) to major theater of war (MTW). Not only has it proven its worth in combat, but also in implementing a geographic CINC's theater strategy by participating in numerous exercises to demonstrate U.S. resolve with allies and coalition partners.

MEU (SOC) Organization

The MEU (SOC)'s structure is based on the principle organization for all missions across the range of military operations, the MAGTF, which includes a Command Element (CE), a Ground Combat Element (GCE), an Aviation Combat Element (ACE) and a Combat Service Support Element (CSSE). The MEU (SOC) is commanded by a colonel and contains approximately 2000 Marines.[53]

Command Element (CE)

There are seven standing MEU (SOC) command elements in the Marine Corps. Three are based on the eastern seaboard at Camp Lejeune, North Carolina (22^{nd}, 24^{th}, 26^{th}), three are based on the western seaboard at Camp Pendleton, California (11^{th}, 13^{th}, 15^{th}), and one is based on Okinawa (31^{st}). The CE provides the command, control, communications and intelligence (C4I) necessary for effective planning and execution of operations in a joint/combined environment. It is comprised of approximately 200 Marines to include a Commanding Officer (CO), Executive Officer (XO), supporting staff, Force Reconnaissance Company Detachment, Radio Battalion Detachment, a Communications Battalion Detachment, and an Intelligence Company Detachment.[54]

Ground Combat Element (GCE)

The GCE is a reinforced infantry battalion with approximately 1,200 Marines that is attached to the MEU CE six months before deployment from one of the infantry regiments within the Marine division. These battalions serve on a rotational basis, which normally consists of six months with the MEU for specialized training prior to deployment, six months on deployment, and twelve months with their parent regiment for conventional operations and training. The GCE contains a Headquarters and Service Company, three rifle companies, one weapons company, one artillery battery, one Light Armored Reconnaissance (LAR) company, one assault amphibian vehicle platoon (AAV), one combat engineer platoon, one reconnaissance platoon, and one tank platoon.[55]

Aviation Combat Element (ACE)

The ACE is a reinforced helicopter squadron with approximately 300 Marines that is provided to the MEU in the same manner as the GCE. The ACE is normally constructed around a medium lift helicopter squadron and includes the following detachments: one Marine Light Attack Squadron Detachment (HMLA Det), one Marine Heavy Helicopter Squadron Detachment (HMH Det), one Marine Attack Squadron Detachment (VMA Det), one Marine Air Control Group Detachment (MACG Det) that includes Low Altitude Air Defense (LAAD), and one Marine Aviation Logistics Squadron Detachment (MALS Det).[56]

Combat Service Support Element (CSSE)

The CSSE, designated the MEU Service Support Group (MSSG), is a standing headquarters within the Force Service Support Group (FSSG) of the Marine Expeditionary Force (Corps Level headquarters). The MSSGs receive detachments from the seven standing support battalions that make up the FSSG to form a cohesive organization that provides the appropriate logistics (ground and aviation) for the entire MEU (SOC). These detachments include supply, motor transport, engineers, landing support, maintenance, medical and dental.[57]

Maritime Special Purpose Force (MSPF)

Task organized from within the MEU (SOC), the MSPF does not create a fifth element but is the major component that performs the SOC missions. The MSPF consist of the Force Reconnaissance Platoon, a conventional rifle platoon from one of the line companies, and numerous Marines with unique specialties, such as communications, snipers and counter intelligence personnel. The MSPF is organized into five elements, which are command, covering, strike, reconnaissance and surveillance and aviation. The MSPF is formed six months prior to deployment from all four elements of the MEU (SOC), and begins a rigorous training program which will be discussed in the capabilities of the MEU (SOC). The MSPF task organization can be augmented by naval elements from the amphibious squadron, such as the Naval Special Warfare Tactical Unit (NSWTU-SEALs).[58]

Capabilities of the MEU (SOC)

The mission of the MEU (SOC) is to provide the geographic CINCs a forward-deployed, rapid crisis response capability by conducting conventional amphibious and selected maritime special operations under the following conditions: at night under adverse weather conditions, from over the horizon, under emissions control, from the sea by air, surface or a combination. To meet that mission the MEU (SOC) possesses certain capabilities broken down into four categories of operations: amphibious, direct action, military operations other than war (MOOTW), and supporting.

The four types of amphibious operations are assault, raid, demonstration and withdrawal. Particular emphasis is placed on the amphibious raid, conducted in order to inflict loss or damage

upon opposing forces, create diversions, and capture or evacuate individuals by swift incursion into an objective followed by a planned withdrawal.[59]

Direct action operations are normally short duration strikes and small-scale offensive action employing precision raids, ambushes, and direct assault using close quarter battle skills, standoff attacks by fire from air or surface, or guidance of precision munitions. The direct action missions are mostly performed by the MSPF and require the most training. The focus for SOC certification at the end of the six month predeployment workup is executing all direct action missions with two conducted simultaneously. Direct action missions include the following:

1) In-Extremis Hostage Recovery (IHR)
2) Seizure/ Recovery of Offshore Energy Platforms (GOPLAT)
3) Visit, Board, Search, and Seizure (VBSS)
4) Specialized Demolition Operations
5) Tactical Recovery of Aircraft and Personnel (TRAP)
6) Seizure/ Recovery of Selected Personnel or Material
7) Counterproliferation (CP) of Weapons of Mass Destruction[60]

The third category of operations is MOOTW, which includes Peace Operations (and its two subsets, Peacekeeping and Peace Enforcement), Security Operations, Non-combatant Evacuation Operations (NEO), Reinforcement Operations, Joint/Combined Training / Instruction Teams and Humanitarian/Disaster relief missions. Last is Supporting Operations, which support the full spectrum of MEU (SOC) operations. These include:

1) Fire Support Planning, Coordination, and Control in Joint/Combined Environment
2) Signal Intelligence (SIGINT)/ Electronic Warfare (EW)
3) Military Operations on Urban Terrain (MOUT)
4) Reconnaissance and Surveillance (R&S)
5) Initial Terminal Guidance (ITG)
6) Counterintelligence Operations (CI)
7) Airfield/ Port Seizure
8) Limited Expeditionary Airfield Operations
9) Show of Force Operations
10) JTF Enabling Operations
11) Sniping Operations[61]

Overall, these twenty-nine capabilities give the geographic CINC options to implement his Theater Engagement Plan using a forward-deployed, sea-based force that can remain on station

indefinitely. But like every military organization, the MEU (SOC) has limitations. First, a MEU (SOC)'s capability to defend against sustained armor and air threats is minimal. Second, a MEU (SOC) is not designed for sustained operations and has limited capability to replace combat losses. Finally, the MEU (SOC) headquarters greatly reduces its command and control capability when it operates independent of naval shipping. These limitations can be mitigated if a MEU (SOC) is employed with an aircraft carrier battle and its accompanying battlegroup or as a member of a JTF.[62]

MEU (SOC) and the Amphibious Squadron (PHIBRON)

The MEU (SOC) is a capable Flexible Deterrent Option designed for multiple missions using predesigned, organic force packages. Its use of combined arms of air and ground forces under one commander allows a tremendous amount of flexibility to meet a wide range of possible contingencies. Yet the MEU (SOC) would not be able to accomplish this mission without its inherent relationship with the amphibious squadron (PHIBRON). The PHIBRON, normally comprised of three amphibious ships, provides a base for the MEU (SOC) to conduct its missions. It provides the platforms for command and control with its satellite up-links, staff spaces for planning and monitoring of operations, and its mobility. The PHIBRON provides strategic mobility by providing transportation of the MEU (SOC) and most of its support elements to the theater. Operational mobility is provided to the MEU (SOC) by transporting it continuously to areas that support the geographic CINC's Theater Engagement Plan (TEP) for exercises or operations. Its tremendous cargo capacity allows all the MEU (SOC)'s sustainment to be transported with it while sea-based platforms provide excellent force protection. Sea-based sustainment frees the MEU (SOC) from international agreements and potential low order threats by operating within international waters (12 nautical miles from shore). If the threat is more sophisticated then the PHIBRON can close with an aircraft carrier and its supporting battle group and form a potent NEF that provides even greater protection and capabilities for the MEU (SOC).

Conclusion

The MEU (SOC) is a sea-based expeditionary organization that possesses unique capabilities to conduct selected maritime missions. Its six-month predeployment training program allows for standardized mission packages and development of a deep rapport between all units. These standardized mission packages allow the MEU (SOC) to execute within six hours of receipt of mission. These missions normally focus on an amphibious raid type operation, where operations are to either get in and out quickly, or enable another force to assume the mission. Missions are supported by the PHIBRON at sea, which provides all classes of supply and combat support in the form of AV-8B Harriers, AH-1W Cobra helicopter gunships, and possibly naval gunfire from an attached destroyer. Overall, the MEU (SOC)/PHIBRON team provides a force package that gives the NCA and the CINC *options* to either engage potential friends or deter potential adversaries and react to crises. The MEU (SOC)/PHIBRON team will find it difficult to accomplish in 1999 with what the Marine Corps seeks when it implements OMFTS without certain changes.

V. Current MEU (SOC)s and OMFTS: An Analysis

Introduction to Analysis

This analysis compares the current MEU (SOC)'s doctrine, structure, equipment and capabilities to the future concepts within OMFTS of Ship to Objective Maneuver (STOM), Sustained Operations Ashore (SOA), and Comprehensive Command and Coordination. The method for comparison uses a generic scenario based in the Black Sea region to compare *current MEU (SOC) capabilities with future OMFTS requirements* while executing certain MEU (SOC) missions. The outcome of this analysis concludes whether a current MEU (SOC) can execute its current mission as specified by OMFTS or whether it requires a fundamental change. In order to place this analysis into context, the discussion requires a scenario that a MEU (SOC) could face in the near future.

The Black Sea Intervention. The country of Georgia has been beset by ethnic and civil strife since independence from Russia in 1991. Conflicts in South Ossetia and western Georgia have caused Russian peacekeepers to be deployed to both regions, and a United Nations Observer Mission to Abkhazia, Georgia. With the economy faltering due to the Russian economic downturn, a partisan movement has risen in the western region and has split the military. Recent purchases of anti-ship missiles have fallen in the hands of the partisans and small mobile forces have caused havoc in the capital of Tibilisi. These actions caused the U.S. ambassador to request immediate evacuation . Due to the unrest along their common border, the same fate has befallen oil-rich Azerbaijan and the U.S. ambassador in Baku is also requesting reinforcement of the U.S. embassy and possible evacuation if necessary. The National Command Authority (NCA) has authorized the CINC to move the ARG/MEU into the Black Sea and the aircraft carrier battle group south of the Dardanelles. The missions of the newly formed NEF are to neutralize the missile site, conduct simultaneous Non-combatant Evacuation Operations (NEO) of the Tibilisi embassy and a reinforcement of the Baku embassy. The United Nations (U.N.) has prepared a larger U.S.-led peacekeeping force to be introduced at the port of Batumi, Georgia, and requires the MEU (SOC) to secure the port facility and accompanying airfield.

The final on-order mission is to secure a chemical munitions site that has not yet been destroyed, based on treaties between Russia and the U.S.

Under this scenario, the current MEU (SOC) will be compared to the requirements necessary in STOM, SOA and Comprehensive Command and Coordination to execute OMFTS, in order to conclude whether the MEU (SOC) structure requires changes to execute these missions.

An Analysis of Ship to Objective Maneuver (STOM)

The current Marine Corps doctrine for a MEU (SOC) ensures it is trained to executing all of the missions mentioned in the above scenario. However, a MEU (SOC) *does not* possess the necessary means to execute the principles of STOM under OMFTS doctrine. As discussed previously, the MEU (SOC) must be capable of striking at an enemy critical vulnerability, create an overwhelming tempo, pit strength against weakness, use the sea as maneuver space and integrate all elements of the NEF to effectively adhere to the principles of STOM.

First, the MEU (SOC) cannot conduct simultaneous deep penetrations by air on each embassy which would *strike at the enemy's critical vulnerability* through the creation of *overwhelming tempo.* The enemy's critical vulnerability is his inability to command and control his forces to counter the quick strikes of simultaneous air assaults. The MEU (SOC) creates overwhelming tempo by assaulting faster than rebel forces can establish an adequate defense or ambush. However, a MEU (SOC) cannot conduct simultaneous assaults because it possesses four CH-53E helicopters, which have the necessary range to either evacuate Tibilisi or reinforce Baku. The current twelve CH-46E helicopters can only carry fourteen Marines one hundred nautical miles before having to return to the ship for fuel unless a risky forward refueling point is established in country. To conduct a *simultaneous* NEO and reinforcement, the medium lift helicopter squadron would have to have the capability to fly over 200 nautical miles to the city of Tibilisi and 475 nautical miles to Baku. The conclusion is that to conduct these deep operations the MEU (SOC) would require the extended range and troop-carrying capacity (twenty-four Marines) of the MV-22 tilt rotor aircraft.

Second, the MEU (SOC) could not conduct simultaneous lifts of two Marine companies even if one was equipped with MV-22s, due to limited deck space. The deck space on the amphibious assault helicopter carriers (Landing Helicopter Assault (LHA) *USS Tarawa* class or Landing Helicopter Dock (LHD) *USS Wasp* class) cannot support the marshalling of the twelve MV-22s and four CH-53Es simultaneously. The maximum number of spots is nine *if* no other types of flight operations are in effect, such as Harrier jump jet or CH-53E. Although the Navy's purchase of the new *USS San Antonio* class amphibious ship will add two additional spots, it still will not meet the needs of the simultaneous air assault. The conclusion is the MEU (SOC) will need to utilize additional spots on another ship by adding amphibious shipping or seeking deck spots within the NEF to maintain a completely sea-based operation.

Third, the MEU (SOC) of 1999 does not possess an armed aircraft that can provide doctrinal protection for the air assault (even with CH-53Es) or fire support for ground forces once they are inserted beyond the one hundred nautical mile radius of the AH-1W Cobra helicopter. This means the air assault aircraft and the rifle company it is carrying do not have the necessary close protection required. Currently a MEU (SOC) must use the Harrier, NEF assets, joint assets or a combination of these for air assault and fire support beyond one hundred nautical miles; yet they do not provide close in protection due to their fixed wing design. If the MEU (SOC) is to adhere to STOM principles, it must pit *strength against weakness*. Sending unarmed air assaults that do not possess the necessary combat power to defeat the current threats of hand-held, surface-to-air missiles and ground fire does not meet this principle.

Fourth, the MEU (SOC) structure only focuses one rifle company within the Battalion Landing Team (BLT) for air assault operations. Although the other two companies are raid-trained, they are focused on small boat raids and mechanized raids. To take advantage of the deep capabilities STOM principles dictate, there will not be enough trained rifle companies to take advantage of the airlift available within the MEU (SOC).

Fifth, while MEU (SOC)'s do use the *sea as maneuver space*, within this scenario the threat of surface-to-surface antiship missiles requires that the ARG/ MEU assemble further from the coast to launch air or surface assaults. Currently for the MEU (SOC) to launch a neutralization raid on the antiship missile site, it would endanger an amphibious ship, which has to sail within ten kilometers of the coast to launch Amphibious Assault Vehicles (AAVs) or small rubber boats. The close proximity to the threat will give away the intentions of the raid force, even at night. The conclusion is the MEU (SOC) needs a method for rapid surface assault with an armored defeating capability when it arrives ashore. This capability will be provided in the future acquisition of the Advanced Amphibious Assault Vehicle (AAAV), which has a twenty-five to fifty nautical mile range over the water with speeds in excess of thirty five knots. It mounts a 25-millimeter chain gun that can defeat most light armor and it can carry eighteen Marines plus its crew of three.[63]

Finally, the integration of all naval assets within the NEF to accomplish the mission does not meet the spirit of the OMFTS and STOM. Although MEU (SOC)'s train extensively with the aircraft carrier and her supporting combat and sustainment ships in the predeployment training cycle, there is no authoritative doctrine for NEF operations. Most operations are viewed as strictly Navy operations or amphibious operations, not a combination of the two types of doctrines. NEF's are ad hoc organizations with the senior officer, normally a Navy admiral on board the aircraft carrier, in command. This lack of tactics, techniques and procedures between the aircraft carrier battle group and the ARG/MEU precludes full integration of the numerous capabilities of all naval forces.

An Analysis of Sustained Operations Ashore (SOA)

As previously discussed, amphibious forces have traditionally enabled the introduction of joint or coalition forces by establishing a lodgment to flow manpower and materials to conduct conventional joint operations ashore. The OMFTS concept of MAGTFs in Sustained Operations Ashore (SOA) is to conduct precise and focused combat actions rather than methodical ground operations. SOA envisions the MAGTF as an Operational Maneuver Element (OME) that can be either an enabling, decisive or exploitation force. To complete this transformation from the current

doctrine, key capabilities must be enhanced and implemented. These include command and control, planning, intelligence, firepower, and logistics. How does the current MEU (SOC) compare in these areas, and what changes are required for it to execute SOA?

The current MEU (SOC) is a MAGTF and operates as an OME with its current structure, which can execute enabling, decisive and exploitation missions. Yet to operate in the battle space defined in the scenario as OMFTS describes, many improvements must be implemented. Under the current system, the MEU (SOC) does not posses a robust communications system. Normally it possesses only one satellite communications channel, which is incapable of providing the necessary data and communications requirements for simultaneous operations and reach-back requirements. Although their capabilities have improved with technological updates in data and communications equipment, they still do not possess the ability to provide a common operational picture to elements ashore. For a current MEU (SOC) to operate in a complex scenario as that indicated, a robust communications structure is missing from all levels of command.

The MEU (SOC) does not possess the mechanism for the rapid receipt and response to requests for operational, intelligence or logistical support. The equipment, supplies and personnel embarked aboard the PHIBRON from the U.S. are all the MEU commander has to work with, due to an inability to receive rapid support at sea.

Due to the small size and strict structure of only one maneuver battalion, a MEU (SOC) can only integrate company level raids conducted simultaneously, instead of larger battalion sized operations. One reason is the small operations staff within the Command Element. It does not possess the depth for prolonged sustained simultaneous operations. For example, the operation's cell officers are subject matter experts in their individual fields such as aviation, fire support and special operations. Most are captains with a lieutenant colonel as the operations officer. The captains do not possess the experience of previously serving on higher level staffs, or receiving formal professional education at a command and staff level school, such as the Marine Corps Command and Staff School at Quantico, Virginia.

The current MEU (SOC) planning process is entitled the Rapid Response Planning Process (R2P2), which enables the MEU and PHIBRON commanders to quickly assess the situation and make a decision so the execution of a mission can be accomplished in six hours from receipt of that mission. SOA actually refers to this planning process as the model for larger MAGTFs to use for their planning process, which indicates few changes will be required in this area. One function of planning that the current MEU (SOC) does not possess and requires it to carry out real time interactive planning with either other elements of the MEU, the NEF or JTF. This will permit the OME to generate a faster operating tempo than its adversary and receive the latest intelligence before execution.

Current MEU (SOC) intelligence capability is limited to that in which it receives from higher echelons or discerns from actual operations. The MEU (SOC) does possess the Predator Unmanned Aerial Vehicle (UAV), but its reliability has not met the requirements of SOA intelligence needs. The downlink feed can only be received aboard ship and not transferred to forces operating ashore or in-flight. This requires either a voice transfer of information or a data link established to pass images. The MEU (SOC) does not possess Theater Exploitation of National Capabilities (TENCAP) equipment or personnel even when engaged in an operation. This material must be requested from the JTF and is not timely.

SOA requires that most fires will be sea-based, and provided by the NEF while maneuver forces retain sufficient organic firepower to provide for their own protection, adapt to unanticipated situations or deal with asymmetrical threats which are less vulnerable to long-range precision fires. MEU (SOC)'s have six AV-8B Harriers, four AH-1W Cobra helicopter gunships and one battery of six M198 towed 155 millimeter howitzers for organic firepower ashore. While the aircraft can operate from amphibious shipping with limited range, the M198 is expected to operate with the maneuver forces ashore and provide all-weather fire support. This weapon system, and the M777 lightweight 155 millimeter due to replace it, does not possess the tactical mobility nor range to provide adequate fire support to maneuver forces operating in light armored vehicles (LAV), M1A1 tanks and the new

AAAVs. The M777, although air mobile with the CH-53E and possibly the MV-22, only has a thirty kilometer range and no new precision munitions that are necessary to reduce collateral damage when operating in a urban conflict. The MEU (SOC) does not possess a counter battery radar, such as the AN/TPQ-36, which can locate incoming mortar and artillery rounds. The conclusion is that to provide accurate lethal and non-lethal fires, the current MEU (SOC) requires a more mobile and lethal weapon system or systems.

Finally, MEU (SOC)'s operate from a sea-based platform, which provides its logistical base for all operations. This conforms to the concept of SOA, which intends to free the commander ashore from having to protect large logistical trains. The MEU (SOC) conducts raid operations, which do not require tremendous sustainment due to their short duration. If forces ashore require resupply, then it is provided in the manner of a small package that resembles a forward arming and refueling point (FARP) operation, which is conducive to the SOA concept. One logistical challenge faced by current MEU (SOC)'s is the inability to store a large number of repair parts on ship. Although higher usage parts are stocked, the supply system does not provide rapid asset visibility within the theater and the means to acquire it. SOA requires a system to identify and deliver logistical sustainment while at sea. This inability in the supply system could make certain important mission-essential equipment unavailable.

Analysis of Comprehensive Command and Coordination

The Commandant's concept paper "Beyond C2: A Concept for Comprehensive Command and Coordination of the MAGTF," outlines how current command and control structures must evolve to meet the myriad of challenges the Marine Corps will face in the future. He states the forward-deployed commanders must exploit the entire spectrum of national power to conduct military operations in support of national interests. The key for MAGTF commanders is to provide a broad range of military capabilities with disparate, non-military forms of pressure and influence while preserving the freedom of action at every level.

Current MEU (SOC) commanders operate in the traditional command hierarchy that has been around since the time of armed forces. Specifically, they operate under the amphibious doctrine developed before World War II, with the Commander, Amphibious Task Force (CATF- a navy officer) in overall command until the Commander, Landing Force (CLF-a Marine officer) establishes control ashore. Then the amphibious operation ends and the command relationship is dissolved. Although CATF/CLF are coequals in planning, CATF is in overall command until the amphibious objectives have been met. How does the current doctrine of amphibious warfare compare to Comprehensive Command and Coordination within OMFTS?

First, the key to Comprehensive Command and Coordination is the development of a reach-back capability. Described as direct-interconnectivity, reach-back allows commanders to request and receive support directly and promptly from numerous sources and organizations within the U.S. or in theater. Currently, the MEU (SOC) must use the chain of command to request support, which is time consuming and allows several different staffs to impact on the request. Future MEU (SOC) commanders would be able to contact organizations for direct support and inform senior leaders in the chain of command later. Currently a senior command must give the MEU (SOC) commander a "Direct Liaison Authorized (DIRLAUTH)" command before the MEU commander can contact the organization for support. In the Black Sea scenario, a MEU (SOC) commander could contact organizations that support the successful execution of his mission directly, such as the State Department to gain information on the Russian Peace Keeping Force in Georgia. A future MEU (SOC) commander could speak with business executives who have worked in the port of Batumi to determine the physical and political atmosphere. Overall, the keys to reach-back are the establishment of the links before a MEU (SOC) deploys so that the contact between the MEU (SOC) commander and the organization is not a surprise, such as the CBIRF relationship with academia described previously.

Another change from the current operations of MEU (SOC)'s with the reach-back concept is the ability to request additional military forces or material to support the mission. The MEU (SOC)

rarely receives additional support due to the space of amphibious shipping or the inflexible structure of the MEU (SOC). Most capabilities embarked with the MEU (SOC) aboard amphibious shipping are designed to execute the twenty-nine capabilities previously discussed. To execute OMFTS, future MEU (SOC) structures will have to possess greater flexibility to provide the JTF the proper response necessary to either diffuse the crisis or conduct military intervention with the proper support.

For the future MEU (SOC) to implement Comprehensive Command and Coordination, it must train the commanders to conduct intuitive decision making, possess mutual understanding with his subordinates, and develop implicit communications within his command. In the 1990's, most commanders who deploy with a MEU (SOC) have had MEU (SOC) experience earlier in their career, but is this good enough? To conduct intuitive decision making, a commander's experience, judgement and intellect are all key in producing an effective decision. MEU (SOC) commanders usually alternate between an infantry officer and a rotary-wing aviator, but does this narrow the field to select the best officer? With more and more humanitarian and disaster relief operations being executed, would a Combat Service Support Officer provide better insight? Although MEU (SOC)s have command challenges to face to reach the levels of OMFTS, normally MEU(SOC) commanders are the top officers for their rank within the Marine Corps, with most assuming the rank of Brigadier General after a successful tour. Current MEU (SOC)s conduct an extensive six month predeployment training period that exposes all elements of the MEU to the situations in which they are most likely to respond. This aids commanders and subordinates tremendously with their decision making skills. Also, MEU (SOC) lessons learned are immediately passed between the standing headquarters in the form of detailed after action reports and face to face turn over within the area of operations.

Mutual understanding between leaders and subordinates is described as necessary for Comprehensive Command and Coordination to be effective. Described as a deep awareness of the critical factors in any situation, it allows for a common situational awareness. It also allows subordinates to exercise initiative. Current MEU (SOC)'s possess this skill through the predeployment training and raid mission Standard Operating Procedures (SOPs). In the scenario above, if the NEO

commander understands that future U.S. military personnel will have to perform peace keeping operations in the city of Tibilsi, he may minimize the use of deadly force in order to prevent further animosity within that region. Currently that thought is exercised by higher echelons of command with the Rules of Engagement (ROE), but the future commanders on the ground will need to possess mutual understanding of the entire situation to make correct decisions for the present and future.

Implicit communications allow the intangibles of direct personal human interaction to provide a greater level of information exchange. Data links can convey huge amounts of information, but cannot convey the gestures or tone of voice of a concerned commander. Comprehensive Command and Coordination attempts to exploit this function by developing the necessary tools and capabilities to enhance implicit communications. Current MEU (SOC)s are required to split commands amongst the three amphibious ships of the PHIBRON. Often the only communication means is either by message, radio transmission or by flying them from one ship to another, called cross-decking. Cross-decking ties up helicopter assets and removes the commander from his Marines in important times of planning for operations. Future MEU (SOC)s must determine a means for commanders and subordinates to better conduct implicit communications without time intensive cross-decking procedures.

Summary of Analysis

Current MEU (SOC)s will need to change in order to execute OMFTS. STOM, SOA and Comprehensive Command and Coordination require reviews of current doctrine, structure and equipment possessed by the MEU (SOC)s. MEU (SOC)s find themselves involved in more and more crises that are complex, and do not fit conveniently into their mission capabilities. Future acquisitions coupled with development of OMFTS will require the MEU (SOC)s to review how they execute their doctrine in order for them to carry out the missions assigned by a JTF or geographic CINC. The shortfalls in doctrine, organization and equipment lead to the following recommendations to solve some of the challenges MEU (SOC)s will face in the next century.

VI. Conclusions and Recommendations

Of all of the MAGTF organizations (MEU, MEB, MEF), the MEU (SOC) most closely resembles the intent of OMFTS. However, the Marine Corps must realize that fundamental changes will have to be made to the "Crown Jewel" without removing the principles that have made it a viable option for geographic CINCs. As mentioned in the introduction of this monograph, the Marine Corps has always adapted to change by remaining expeditionary with a naval character. The conclusions drawn from the previous analysis demonstrates that change is required for the MEU (SOC) to adapt to the requirements of OMFTS.

Conclusion and Recommendations on STOM

First, in order for the MEU (SOC) to conduct deep operations envisioned in STOM from over the horizon, it must acquire the new technology of the MV-22 and AAAV. These two combat systems must possess robust communication and precision location systems to enhance the capabilities of small units deployed over disperse objectives. Second, the Marine Corps must acquire a platform to replace the AH-1W Cobra helicopter. It must have the range, speed and flexibility to provide protection to MV-22 and Ch-53E equipped air assault forces while in-flight and fire support to ground forces once they disembark. It should possess the capability to suppress or neutralize most ground threats and certain air threats. Third, creating enough deck space for all helicopters or other aviation assets to operate simultaneously, the MEU (SOC) must look to other assets within the NEF. One recommendation is to use the aircraft carrier to marshal forces until all other aviation assets are prepared to launch. This would provide plenty of deck space for the twelve MV-22s, four CH-53Es and Harrier operations if necessary. Another option is to deploy a Maritime Prepositioning Force ship (MPF) with an aviation handling capability with the ARG/MEU. This ship could also provide berthing for additional Marines or non-combatants evacuated from a hostile territory. Fourth, it is evident the Navy and Marine Corps need to formalize the NEF and create viable operating doctrine for the ARG/MEU and aircraft carrier to operate together and more efficiently utilize the other's assets. This

will be discussed further in Comprehensive Command and Coordination. Finally the MEU (SOC) needs to reevaluate the boat company and determine if this is the best use of limited assets. There is an incredible capability being offered by the combination of the MV-22 and CH-53E to conduct a simultaneous lift of two companies. The author recommends that the rubber boat company transition to a second air assault company and train on rubber boats as a collateral mission.

Conclusion and Recommendations on SOA

The initial conclusion is that the MEU (SOC) has always operated as an OME. One example is the invasion of Grenada, where the 22nd MAU maneuvered by sea from their initial objectives to subsequent objectives on the island. This maneuver did not require the shore basing of any logistics or fire support, and all attacks were precise strike operations. Although the MEU (SOC)s operate as an OME they still require key changes in certain areas to completely conform to SOA and OMFTS.

The MEU (SOC) has not completely capitalized on the information revolution by acquiring the appropriate communications equipment to provide a raid force commander a common operational picture. Once the MV-22 or CH-53E lifts off, the only means of updates are by radio transmission. Several command and control MV-22s or CH-53Es must be developed for the raid force commander to provide satellite communications and data down links to receive updated UAV pictures of the objective.

Although resupply at sea allows an ARG/MEU to operate indefinitely off station, MEU (SOC)s need a means to receive urgent resupply of mission critical equipment, spare parts and personnel while at sea. Working with the aircraft carrier can alleviate this by having critical supplies flown to it by fixed wing aircraft, and then subsequently flown to the ARG via helicopter. Another more direct route would be a Harrier-type jump jet that is a cargo variant.

A MEU (SOC) needs staffs that are more experienced and educated in the planning process. To be placed in the forefront of American policy so often, the staff is not adequately prepared to handle these situations. While higher level staffs receive the most experienced and educated personnel, they rarely deploy. A recommendation is to make the MEU (SOC) staff more senior by making most

of the billets require a major instead of a captain. These majors would have to be a Command and Staff College graduates with a least one member a second year School of Advanced Warfighting (SAW), School of Advanced Military Studies (SAMS) or a School of Advanced Aeronautical Studies (SAAS) graduate. The staff should be formally organized into cells of current operations and future operations to facilitate better planning with the second year SAW, SAMS, or SAAS graduate as a chief of planning.

The firepower for units operating ashore is limited to air or towed artillery. Although air can keep pace with a rapid maneuver, it is weather dependent and limited by fuel consumption rates. The all-weather artillery needs to be as tactically mobile as the maneuver with appropriate ammunition carriers that are as equally mobile. One recommendation is to purchase the LAV 120-millimeter mortar variant. It has the best ground mobility, but it is limited in range and types of projectiles. Another recommendation is to acquire a wheeled 155-millimeter self-propelled howitzer that has an ammunition carrier with a similar design for commonality of parts. These could keep up with maneuver, deliver accurate all-weather fires and provide a protected environment for the crew from shrapnel and weapons of mass destruction. Also, self-propelled howitzers have individual communication devices, which provide a better situational awareness for the crew and allow for a rapid processing of digital fire missions.

Conclusion and Recommendations on Comprehensive Command and Coordination

The MEU (SOC)s must revise the command and control doctrine of CATF/CLF. With MEU (SOC)s mostly conducting raid-type operations, the relationship needs to change. The recommendation would lean more toward joint doctrine of the supporting and supported commander. If the objective of the operations were mainly on shore, then the MEU (SOC) commander should be the supported commander with all elements of the NEF prepared to assist his operation. If the objective is primarily at sea, such as defense of the ARG while transiting dangerous straits, then the ARG commander should be the supported commander. Another key recommendation is to develop formal standing NEF headquarters like those of the MEU (SOC) and PHIBRON. This headquarters

would reside aboard a specially designed command and control ship and have either a Navy or marine officer as its commander. Underneath it would be the aircraft carrier and its carrier wing, the surface action group, the ARG and the MEU (SOC) along with other assets as the mission dictated. The command would rotate between Navy and Marine with the deputy being the opposite service. This headquarters would provide the type of integration of naval assets that Forward from the Sea and OMFTS espouse.

To execute reach-back capabilities, the MEU (SOC) must have structured channels for the request of information that are established before deployment. These channels would not mimic the chain of command but would go straight from the MEU (SOC) to the organization providing the necessary information and resources. One example is to establish a rapport with the local university in the state which the MEU (SOC) deploys from in advance. The MEU (SOC) commander could speak with the faculty and gain an understanding on what they can and cannot provide him.

Another requirement for reach-back is to allow the MEU commander greater freedom on what equipment and organizations encompasses his MEU. The East Coast MEUs, West Coast MEUs and the Okinawa MEU are designed exactly alike, yet their area of operations are completely different. Slight modifications could enhance the MEU's combat capability immensely and better support the geographic CINC. One example is the West Coast MEUs and the issue of tanks. The area of operations for these MEUs is the U.S. Central Command, which has a mostly open, arid climate, yet rarely are tanks allowed to deploy due to the space and cost of one platoon of four M1A1 tanks. A recommendation is to have an MPF ship with the tanks preloaded (this has already occurred) and a designated tank company identified in the U.S. for deployment. This tank company would have trained with the MEU in the predeployment work ups and could fly out in case of heightened tensions within the region. Another recommendation is to acquire a smaller version of MPF that could carry the tanks and have deck spaces for flight operations as mentioned earlier. This would provide the MEU (SOC) a greater capability to defeat better equipped forces in the region.

The conclusion on intuitive decision making and mutual understanding is that the best means of developing it is through shared experience. The MEU (SOC) predeployment program develops intuitive decision making and mutual understanding between commanders and subordinates better than any other manner known to the author. Personnel and equipment stability are established up to twelve months but no less than six months before deployment. For commanders to make the best decisions they must understand clearly the higher commander's intent. The predeployment training program needs to focus more on putting commanders in a position where the situation is complex and determine the best procedures for commanders to quickly understand the effects of their decision, indecision or a poor commander's intent.

Finally, the realities of naval shipping cause headquarters and commands to be split. This creates a natural barrier sometimes for implicit communications to occur. The time consuming cross-decking of personnel needs to improve by providing special helicopters to transfer personnel from ship to ship, or by developing a Video Teleconferencing Center (VTC). VTC would allow commanders to see one another's reactions and personal gestures. An intranet type communications system would allow a briefing to be communicated rapidly with each ship. This would allow the raid force commander more time with his unit to prepare for the mission.

Overall, the MEU (SOC) must look upon itself and determine if it is to remain the preeminent "911" force of the U.S. It needs to acquire better resources to accomplish this mission. As shown before, adaptation is the key for Marines to remain a viable option to those in need of its skills. The Marine Corps cannot stick the "Crown Jewels" in the vault and forget about them or someone might steal them! To ensure this does not occur, the Marine Corps must make changes to the structure and training of a MEU (SOC) in order for it to meet the challenges of OMFTS.

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